PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

	Date of mailing *(day/month/year)*
Applicant's or agent's file reference F05-00826970	FOR FURTHER ACTION See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/JP2005/002155	14.02.2005	19.02.2004

International Patent Classification (IPC) or both national classification and IPC

Applicant
KONICA MINOLTA OPTO, INC.

1. This opinion contains indications relating to the following items:

☒	Box No. I	Basis of the opinion
☐	Box No. II	Priority
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☐	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☐	Box No. VI	Certain documents cited
☐	Box No. VII	Certain defects in the international application
☒	Box No. VIII	Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP Facsimile No.	Authorized officer Telephone No.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2005/002155

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in the international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
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International application No.
PCT/JP2005/002155

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	15-16, 19-28, 31	YES
	Claims	1-14, 17-18, 29-30	NO
Inventive step (IS)	Claims		YES
	Claims	1-31	NO
Industrial applicability (IA)	Claims	1-31	YES
	Claims		NO

2. Citations and explanations:

Document 1: JP 7-324108 A (Nippon Zeon Co., Ltd.), 12 December 1995, Full text; all drawings; particularly, claims 1, 2; Par. Nos. 0016 to 0018, 0027 to 0030

Document 2: JP 53-3356 B2 (Solvay and Co.), 06 February 1978, Full text; all drawings

Document 3: JP 4-168109 A (Mistui Sekiyu Kagaku Kabushiki Kaisha), 16 June 1992, Full text; all drawings; particularly, claims; page 2, lower right column to page 3, lower left column, line 20

Document 4: JP 2003-119213 A (Idemitsu Petrochemical Co., Ltd.), 23 April 2003, Full text; all drawings; particularly, claims 1, 4, 7 to 8

Document 5: JP 8-3213 A (Mitsubishi Chemical Corp.), 09 January 1996, Full text; all drawings; particularly, claim 1; Par. Nos. 00171, 0020 to 0023

Document 6: JP 1-170605 A (Mitsui Toatsu Chemicals, Inc.), 05 July 1989, Full text; all drawings; particularly, claims

Document 7: JP 2003-160620 A (JSR Corp.), 03 June 2003, Full text; all drawings; particularly, Par. No. 0052

Document 8: JP 2002-303788 A (Konica Corp.), 18 October 2002, Full text; all drawings; particularly, Par. Nos. 0031 to 0033

Claims 1-14

The inventions of claims 1-14 do not appear to possess novelty based on document 1, or to involve an inventive step based on documents 1-6.

Claims 1-12 recite a specific subject matter relating to a polymer contained in an optical resin lens, and to a method for manufacturing such polymer.

Within this specific subject matter, however, it is not possible to clearly differentiate the polymer, which is not characterized by the specific subject matter, and the resin lens having a polymer obtained through a manufacturing method having a step of polymerizing an olefin by a process different from that of the specific subject matter.

Thus, no distinction can be appreciated *vis-à-vis*, for instance, the resin lens described in document 1 having a conventional polymer obtained by polymerization of an olefin.

WRITTEN OPINION OF THE
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International application No.
PCT/JP2005/002155

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The inventions of claims 1-12 relate to optical resin lens objects, the specific subject matter specifying the invention objects being herein specific subject mater characterized by a manufacturing method that stipulates various catalyst materials for polymerization.

However, the relationship between the specific subject matter characterized by the manufacturing method and ordinary physical characteristics such as structure and the like of the manufactured object, for instance composition ratios in the polymer constituting the resin, constituent ratios of constituent units when the polymer comprises a plurality of constituent units, molecular weight and/or molecular weight distribution of the polymer and glass transition temperature, remains unclear, and makes it difficult to envisage a specific object being defined by the specific subject matter characterized by such manufacturing method.

Since the relationship between the specific subject matter characterized by the manufacturing method and ordinary physical characteristics of the structure and the like of the manufactured object is unclear, it is not possible to grasp the normal relationship between the object defined by the specific subject matter and the high-durability effect and results as evaluated through the degree of lens clouding upon continuous irradiation of a blue laser for 500 hours and 200 hours. Hence, neither the relationship between the optical resin lens of the claims and optical resin lenses having a polymer obtained by polymerization of conventional olefins, nor the relationship *vis-à-vis* a conventional technological level can be comprehended herein.

Accordingly, the claims are not sufficiently supported by the description.

The inventions according to claims 1-31 are not sufficiently supported by the description.

The feature described in an example in the description, of an optical resin lens manufactured from a specific ethylene-norbornene copolymer and having excellent optical durability against long-term continuous irradiation by a blue laser, is readily comprehensible, the olefin resin in this example being a copolymer of specific compounds.

Since no specific examples are provided relating to olefin resins with polymers of other arbitrary compounds, the superior optical durability effect and results against long-term continuous irradiation by a blue laser cannot be found to apply as a general case.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

Claim 15

The invention of claim 15 does not appear to involve an inventive step based on documents 1 and 7. A polymer containing additives such as an antioxidant or the like is a well-known conventional technology, as described for instance in document 7.

Claim 16

The technology of using a polyolefin polymer in an pickup device using a short-wavelength light source such as a blue laser is a well-known conventional technology, as described for instance in document 8.

Claims 17 and 18, 29 and 30

The inventions of claims 17 and 18, 29 and 30 do not appear to possess novelty or to involve an inventive step over document 1.

Document 1 describes a method for manufacturing a norbornene polymer, i.e. a polyolefin, in which as the polymerization catalyst is used a polymerization catalyst corresponding to the polymerization catalyst described in claim 17.

Claims 19 and 20

The inventions of claims 19 and 20 do not appear to involve an inventive step based on documents 1 and 2.

Document 2 describes a method for manufacturing a polyolefin in which as the polymerization catalyst is used a polymerization catalyst corresponding to the polymerization catalyst described in claim 19.

Claims 21 and 22

The inventions of claims 21 and 22 do not appear to involve an inventive step based on documents 1 and 3.

Document 3 describes a method for manufacturing a polyolefin in which as the polymerization catalyst is used a polymerization catalyst corresponding to the polymerization catalyst described in claim 21.

Claims 23 and 24

The inventions of claims 23 and 24 do not appear to involve an inventive step based on documents 1 and 4.

Document 4 describes a method for manufacturing a polyolefin in which as the polymerization catalyst is used a polymerization catalyst corresponding to the polymerization catalyst described in claim 23.

Claims 25 and 26

The inventions of claims 25 and 26 do not appear to involve an inventive step based on documents 1 and 5.

Document 5 describes a method for manufacturing a polyolefin in which as the polymerization catalyst is used a polymerization catalyst corresponding to the polymerization catalyst described in claim 25.

Supplemental Box

V

Claims 27 and 28

The inventions of claims 27 and 28 do not appear to involve an inventive step based on documents 1 and 6.

Document 6 describes a method for manufacturing a polyolefin in which as the polymerization catalyst is used a polymerization catalyst corresponding to the polymerization catalyst described in claim 27.

Claim 31

The invention of claim 31 does not appear to involve an inventive step based on documents 1 and 7.

A polymer containing additives such as an antioxidant or the like is a well-known conventional technology, as described for instance in document 7.

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Industrial applicability (IA)	Claims	1-31	YES
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Claim 15

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Claims 19 and 20

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Claims 25 and 26

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Document 5 describes a method for manufacturing a polyolefin in which as the polymerization catalyst is used a polymerization catalyst corresponding to the polymerization catalyst described in claim 25.

Supplemental Box

V

Claims 27 and 28

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Claim 31

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